

REMARKS

I. INTRODUCTION

Claims 1, 6 and 20 have been amended to clarify the subject matter recited in these claims. New claims 26-33 have been added. Accordingly, claims 1-33 are now under consideration in the above-referenced application. Attached hereto, please find a claim list providing the current amendments to the claims to comply with the requirements set forth in 37 C.F.R. § 1.121. It is respectfully submitted that no new matter has been added.

Applicants appreciate that the Examiner found the subject matter recited in claims 9, 16, 22, and 25 to be allowable.

**II. THE REJECTIONS UNDER 35 U.S.C. §§ 102(b)
AND 103(a) SHOULD BE WITHDRAWN**

Claims 1, 2, 5-8, and 10 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,637,085 issued to Hartkorn (“Hartkorn ‘085”). Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hartkorn ‘085 in view of U.S. Patent No. 5,213,441 issued to Baerveldt (“Baerveldt ‘441”). Claims 11-15, 19-21, 23, and 24¹ stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,584,152, also issued to Baerveldt (“Baerveldt ‘152”), in view of Hartkorn ‘085. Claims 17 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Baerveldt ‘152 in view of Hartkorn ‘085, and further in view of Baerveldt ‘441.

¹ This response assumes that the Office Action’s references to claim 25 at page 4, line 6 and at page 5, line 10 were intended to address claim 24 and not claim 25. Claim 25 is described on page 6 as allowable subject matter, and the discussion of “claim 25” at page 5, lines 10-12 appears to address the elements of claim 24.

It is respectfully asserted that for at least the reasons set forth below, independent claims 1 and 11 and the claims that depend therefrom are neither anticipated nor rendered obvious by Hartkorn '085, taken alone or in combination with Baerveldt '441 and/or Baerveldt '152.

Claim anticipation under 35 U.S.C. § 102 requires that a single prior art reference discloses each and every element of the claim in exactly the same way. *See Lindemann Maschinenfabrik v. Am. Hoist and Derrick*, 730 F.2d 1452, 1458 (Fed. Cir. 1984). Rejection for obviousness under 35 U.S.C. § 103 requires that the prior art teaches or suggests each element of the claim and suggests combining the elements in the manner contemplated by the claim. *See Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 934 (Fed. Cir.), *cert. denied*, 111 S. Ct. 296 (1990); *see also In re Bond*, 910 F.2d 831, 834 (Fed. Cir. 1990).

Applicants' invention relates to a one-piece compressible expansion joint seal. The invention allows a one-piece extruded material to comprise the entire expansion joint sealing apparatus.

Hartkorn '085 discloses a multi-part joint spanning construction utilizing separate sills, circular retainer bodies, and rubber beading material. (Hartkorn '085, col. 2, lns. 49-51; *id.* at col. 2, ln. 66-col. 3, ln. 5). In this construction, the sills are fixed to the edges of concrete slabs adjacent the expansion joint, and the retainer bodies are laid into the sills as the rubber beading material is emplaced. (Hartkorn '085, col. 3, lns. 20-24). The Hartkorn '085 specification notes that the relatively small constructional height of its sills is an advantage over thicker prior art

constructions, describing the sills as having a minimum height of five centimeters. (Hartkorn '085, col. 1, lns. 31-36, 66-67).

Baerveldt '441 discloses a multi-part, multi-material expansion joint seal system, including a protective retainer element to be bolted to cement slabs as a means of retaining and protecting a separate seal element. (Baerveldt, '441, col. 1, lns. 59-66).

Baerveldt '152 is alleged to be an improvement on Baerveldt '441. Baerveldt '152 discloses an improved joint seal retaining element to be coupled with a separate seal element. (Baerveldt '152, col. 2, lns. 8-33).

A. Claims 1, 2, 5-8, and 10

Claim 1 of applicants' invention, as presently amended, recites an extruded, one-piece compression seal configured to be bonded to a surface of at least one adjacent element. Applicants respectfully assert that the Hartkorn '085 patent does not disclose a compression seal which is extruded *as one piece* and configurable to be bonded to an adjacent element. The Hartkorn '085 patent discloses a joint spanning system comprising at least five separate pieces: two sills, two retainer bodies, and a sealing body. (Hartkorn '085, col. 1, lns. 49-56; *id.* at col. 2, ln. 49-col. 3, ln. 5). The one-piece, extruded seal of claim 1 differs from Hartkorn '085 in complexity of construction. The invention of Hartkorn '085 does not function as a seal without at least five components present. Hartkorn '085 does not disclose a one-piece compression seal bonded to adjacent elements as is recited by Applicants' claim 1. Instead, the "one-piece" sealing body 2 is connected via circular retainer bodies 20 and 21 to "sills 3 and 4 [which] have a flat base 15 or 16 and can therefore be placed upon a correspondingly prepared bed." (Hartkorn

‘085, Col. 2, line 61 - Col. 3, line 5). There simply is no integral compressible sealing portion/lateral wing configured to be bonded to a surface of an adjacent element as recited in claim 1.

Claims 2, 5-8, and 10 depend from independent claim 1. Because the arguments discussed above with respect to amended claim 1 also apply to the dependent claims, these arguments are incorporated herein by reference with respect to the dependent claims.

B. Claims 3 and 4

Claims 3 and 4 depend from independent claim 1. Accordingly, the arguments presented above for the patentability of independent claim 1 apply equally to claims 3 and 4. Baerveldt ‘441 does not solve the shortcomings of Hartkorn ‘085. Baerveldt ‘441 describes the use of EPDM for an elastomeric seal to be used beneath a protective retainer body, but this does not suggest that EPDM is a suitable material for a one-piece, extruded compression seal.

EPDM (Ethylene Propylene Diene Monomer) describes a subset of a larger group of elastomers, ethylene propylene terpolymers. Baerveldt ‘441 described only EPDM as a suitable material for a seal component to be used with its retainer bodies; it did not describe ethylene propylene terpolymers generally. Thus, at least for the reasons above, Hartkorn ‘085 in combination with Baerveldt ‘441 in no way teaches or suggests, much less discloses the subject matter recited in claims 3 and 4.

C. Claims 11-15, 19-21, 23, and 24

Applicants respectfully assert that Hartkorn ‘085 in combination with Baerveldt ‘152 does not teach or suggest the subject matter recited in claims 11-15, 19-21, 23, and 24. To

the contrary, Hartkorn '085 and Baerveldt '152, individually and in combination, teach *away* from Applicants' one-piece seal design in which a surface of the lateral load-bearing wing is bonded to a surface of the blockout region. As noted above, Hartkorn '085 relies on circular retainer bodies 20 and 21 to secure the beadings 5 and 6 to sills 3 and 4. (e.g., Hartkorn '085, Col. 2, line 66 - Col. 3, line 5). The sills 3 and 4 then are placed on beds. (Hartkorn '085, Col. 2, lines 61-63). Baerveldt '152 relies on bolts to secure the expansion joint seal in place. (e.g., Baerveldt '152, Col. 2, lines 64-65).

Neither the Hartkorn '085 invention nor the Baerveldt '152 invention disclose or suggest the Applicants' design of bonding a surface of the lateral load-bearing wing of a one piece compression seal to a surface of a blockout region as recited in claim 11. The Hartkorn '085 patent discloses a joint spanning system comprising at least five separate pieces made of different materials: two sills, two retainer bodies, and a sealing body. (Hartkorn '085, col. 1, lns. 49-56; *id.* at col. 2, ln. 49-col. 3, ln. 5). Baerveldt '152 (an improvement over Baerveldt '441) describes a system in which two retaining bodies are fastened over seal base members. Clearly not a one-piece construction. Even if one assumes that the seal base members of Baerveldt '152 are unitary with the seal body, the seal described therein requires at least three parts. (Baerveldt '152, col. 4, lns. 61-64). Baerveldt '152 requires many more parts if one considers the retaining bolts, washers, and nuts described therein to be components of the Baerveldt '152 apparatus. (Baerveldt '152, col. 4, lns. 54-64; *id.* at claim 5). The multi-part, multi-material expansion joint systems in Baerveldt '152 and Hartkorn '085 do not resemble Applicants' one-piece seal bonded

to the surface of the blockout region. Nor does their complexity teach toward Applicants' one-piece design.

In addition to the reasons stated above, Applicants' independent claim 11 recites lateral wing thickness greater than that of the elastic membrane. Hartkorn '085 does not suggest combining thicker wings with Baerveldt '152. In fact, Hartkorn '085 teaches that *thinner* lateral wings are superior; several statements therein note the advantages of thinner wing construction (Hartkorn '085 uses the term "beading" to refer to the element of its invention that is most closely analogous to the Applicants' "lateral wing," Hartkorn '085, col. 2, lns. 57-61). For example, Hartkorn '085 teaches that thinner beading allows easier installation (Hartkorn '085, col. 1, lns. 57-63), and that thinner sills, sized to fit the beading, allow a greater range of application of the invention. (Hartkorn '085, col. 1, lns. 31-42). The thickness of the beading of Hartkorn '085 is chosen primarily to minimize the sill web height and to resist lifting out of the sills, not for reasons of durability of the material or simplicity of design. (Hartkorn '085, col. 1, lns. 57-63).

Hartkorn '085 could not suggest the thicker wings of Applicants' claim 11 because Hartkorn '085 contains no language discussing the membrane wall thickness. Thus it does not compare the membrane wall thickness to the wing thickness at all, let alone suggest that the wing should be the thicker of the two elements. Moreover, Baerveldt '152 teaches away from use of thicker "lateral wing"-type components and instead notes the desirability to add "layers" for a joint seal retaining element with "greater rigidity, thickness, or surface harness."

(Baerveldt '152, Col. 3, lines 55-57). Thus, there is no suggestion from these references or from the prior art to arrive at the subject matter of claim 11.

For at least these reasons, the Applicants' design is not obvious in light of Hartkorn '085 and Baerveldt '152. Claims 12-15, 19-21, 23, and 24 depend from claim 11. For the reasons stated above, the prior art does not disclose the subject matter of claim 11. Thus, the claims that depend therefrom are patentable for at least those reasons.

D. Claims 17 and 18

Claims 17 and 18 depend from independent claim 11. Accordingly, the arguments presented above for the validity of independent claim 11 apply equally to claims 17 and 18. The arguments presented above for the validity of claims 3 and 4 also apply to claims 17 and 18. That is, none of the cited prior art relies on a lateral wing as the sole load-bearing element of an expansion joint seal or system. Thus, the prior art did not suggest a preferred material appropriate to Applicants' unique application, so the subject matter recited in claims 17 and 18 is not unpatentable by reason of section 103(a).

III. THE OBJECTIONS TO CLAIMS 6 AND 20 SHOULD BE WITHDRAWN

Original claims 6 and 20 were objected to as indefinitely described. These claims have been amended in response to this objection. Paragraphs 20-22 of the specification disclose compression seals utilizing cavities in various configurations to allow changes in lateral width. Amended claims 6 and 20 recite specific embodiments of the matter disclosed in those paragraphs. Therefore, it is respectfully submitted that no new matter has been added and that claims 6-20 are in condition for allowance.

IV. NEW CLAIMS 26-33

New dependent claims 26-29 have been added to specify additional embodiments. These claims depend from amended claims 6 and 20. As discussed above, paragraphs 20-22 of the specification disclose compression seals utilizing cavities in various configurations to allow changes in lateral width. New dependent claims 26-29 recite specific embodiments of the matter disclosed in those paragraphs. Therefore, it is respectfully submitted that no new matter has been added and that claims 26-29 are in condition for allowance.

New claim 30 recites that the bonding of amended claim 1, which is believed to be in condition for allowance, is by adhesives. This is not disclosed or suggested by the prior art upon which the Examiner relies and thus for this additional reason, claim 30 is believed to be in condition for allowance. No new matter has been added. *See, e.g.*, paragraph 31 of the specification.

Applicants have rewritten original dependent claim 9 as independent claim 31, incorporating all the limitation of original claim 1 from which original claim 9 depended. Because the Examiner indicated that original claim 9 would be allowable if rewritten in independent form, Applicants believe that new claim 31 is similarly in condition for allowance.

New independent claims 32 and 33 have been added. A novel feature of the instant invention is the single-piece construction of the compression seal. This is set forth at paragraph 7 of the specification, among other places and thus these new claims do not include new matter. As set forth in paragraph 7, the “design of the compression seal advantageously simplifies its installation in an expansion joint.” Thus, claims 32 and 33 capture this aspect of

the invention by claiming a seal “consisting of” or “consisting essentially of” a compressible sealing portion and a lateral wing forming structurally integrated parts of a one-piece extruded material. The other references upon which the Examiner relies require multiple components to function as a seal and those components are not integrated parts of a one piece extruded material. Accordingly, claims 32 and 33 are believed to be in condition for allowance.

V. SUMMARY

Accordingly, Hartkorn ‘085, taken alone or in combination with Baerveldt ‘441 and/or Baerveldt ‘152 neither teaches nor suggests, much less discloses the subject matter recited in independent claims 1, 11 and 31-33, and the claims which depend therefrom. Amended claims 6 and 20 have been amended in response to the objection and are now sufficiently definite for allowance. Claims 26-30 are dependent claims reciting previously disclosed subject matter, and are thus allowable. Therefore, an affirmation of patentability is respectfully requested for pending claims 1-33.

VI. CONCLUSION

In light of the foregoing, Applicants respectfully submit that pending claims 1-33 are in condition for allowance. Prompt reconsideration and allowance of the present application are therefore earnestly solicited.

Respectfully submitted,

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